



ORIGINAL ARTICLE

A Review of House Sparrow Population Decline in Kupwara District from Jammu and Kashmir, India

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Received: 19th Dec. 2017, Revised: 21st Jan. 2018, Accepted: 27th Jan. 2018

ABSTRACT

*Birds, one of the links of food chain in sustainable ecosystem and are among the best monitors of environment to evaluate the environmental changes throughout the history as bio monitors. The house sparrow (*Passer domesticus*) is a symbiotic bird species highly adaptable with human habituation. There has been drastic decline of house sparrow from all over the world. House construction due to modern trend has resulted in reduced safe nesting for sparrows. Green spaces in our cities give way to more concrete constructions due to which the house sparrow loses its foraging ground. This paper examines the extensive causes for the decline in the population of house sparrow in recent years in Kupwara city of Jammu and Kashmir. There is a dire need of ecological balancing to save the sparrows from getting extinct.*

Key words: House sparrow, Habitat, Kupwara District

INTRODUCTION

Few years before a most common Indian house sparrow were found near every human settlement. The house sparrow is typically about 16 cm long ranging from 14 to 18 cm. It is a compact bird with a full chest and a large rounded head. Its bill is stout and conical with a culmen length of 1.1 to 1.5 cm, strongly built as an adaptation for eating grains and tiny soft-bodied worms present in the ground. Females are usually slightly smaller than males. Younger birds are smaller, males are larger during the winter and females are larger during the breeding season. It is a social bird and gregarious at all seasons. It often forms flocks with other types of birds during feeding (Møller, 1987). Nests are usually grouped together and it roosts communally. It is engaged in social activities such as dust or water bathing.

Social singing is common in the birds in which they call together in bushes. House sparrows sleep with the bill tucked underneath the scapular feathers. They often roost communally in trees and shrubs outside of the reproductive season. Much communal chirping occur before the birds leave the roost in the morning as well as before and after the birds settle in the roost in the evening. Common among sparrows is dust or water bathing that usually occurs in groups. Scratching of head is done with the leg over the drooped wing.

Seeds of grains and weeds in which adult house sparrows mostly feeds on several studies of the house sparrow in temperate agricultural areas have found the proportion of seeds in its diet to about 90%. The house sparrow will eat almost any seeds, but it usually prefers oats and wheat where it has a choice. In urban areas, it feeds largely on food provided directly or indirectly by humans, such as bread, though it prefers raw seeds. The house sparrow also eats some plant matter besides seeds, including buds, berries, and fruits such as grapes and cherries. This bird is also regarded as the familiar friend from early childhood and every person, consciously or unconsciously has been hearing about it in stories, rhymes etc.

In 2010, Britain's Royal Society of Protection of Birds has enlisted the house sparrows in the 'Red List' on the basis of the findings of researchers in different parts of the world including those from India (Gregory, *et al.*, 2002). A survey by Indian council of Agriculture Research (ICAR) in 2010 reveals that Andhra Pradesh has lost 80%, Kerala (20%), Gujarat (80%), Rajasthan (20%) sparrow population (Dandapat *et al.*, 2010), while the decline in coastal areas has been as sharp as 70 to 80% (Times of India, 2008).

Kingdom	:	Animalia
Phylum	:	Chordate
Class	:	Aves
Order	:	Passeriformes
Family	:	Passeridae
Genus	:	Passer
Species	:	domesticus

ECOLOGICAL IMPORTANCE OF SPARROWS

The sparrow is a member of many food chain and food web, therefore if you will not save sparrow it will disturb ecological balance. Pollination in many plants is done with the help of sparrows. Sparrows protect us from many diseases that are life threatened.

MATERIAL METHOD

Kupwara City is a small city located in the northwest of Kashmir with 34.17 to 34.21 North latitude and 73.10 to 73.16 Longitudes. As per census report of 2011, the city has a total population of 21,771. The city is highly urbanized and crowded with vehicles, several shopping complexes, offices, and residential houses. Modern concrete types of buildings are mostly found in the city. Agricultural land had been changed into wasteland by different type of constructions. For the study, selected some sites of Kupwara city, and documented the data with the help of questionnaires for asking questions from local people.

RESULT & DISCUSSION

Sparrows were found in great abundance in villages as compared to cities and towns in the past. According to locals in Kupwara city, there was a time when the trees as well as homes were full of sparrows and they were seen everywhere. Before 10 to 15 years ago, good abundance of sparrow population was present in the city due to the presence of old type of fashioned houses, agricultural fields with plenty of food in the form of food grains and insects. Also in the past, the city was covered under different type of trees and plants and mostly people of city with tidy gardens that was helping this bird in many ways. Past few years the population of this species has abruptly being declined in the city. There are multiple reasons for their decline. Loss of habitat is the primary factor that has vanished sparrows from streets and homes. Due to high rate of urbanization (Holloway, 1996) old type of buildings has been changed to new concrete type of houses where sparrows do not find their habitat making it the most important reason of decline of this species (Monika, 2005). Loss of tree canopy near roads due to construction of shopping complexes, mega buildings, apartments, and to extend width of roads sides for which the trees are cut down without understanding ecological importance of the trees or simply ignoring the reality fact. Installation of cell phone towers is also a possible reason for the decline of this species. Use of different type of organo-chemicals in gardens, parks and change in agricultural patterns is also a reason for the decline of this species (Altizer, *et al.*, 2004 and Hole, *et al.*, 2002).

CONCLUSION

House sparrows are closely associated with human settlements and a drastic decline of this species is a need of concern. It is time for every human to wake up and to act positively for regaining the ecological balance and consistency. Therefore, there is a need of research in Kupwara city to know the real status and behavior of this species, and to work out for the conservation and protection of this species.

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